

Understanding E-rate and CTF Eligible Services

Agenda – Eligible Services

- California Teleconnect Fund (CTF)
 - Program summary, eligible services and charges
- Universal Service Fund (E-Rate) - Eligible services and charges, issues
- Combining CTF and E-Rate discounts
 - Overlap between programs
 - Stacking issues
- Vendor terminology
- Questions and answers

CTF Eligible Services

- Services or functional equivalents are based on 5 categories:

- Measured Business Service (1MB)
- Switched 56
- Integrated Services Digital Network (ISDN)
- T1 Lines
- DS-3
- Above DS-3

Carriers must file a tariff with California Public Utilities Commission

CTF Eligible Services

- CTF provides a discount of 50% off the normal monthly recurring cost for eligible products and services
 - Installation charges not covered
- CTF covers taxes/charges on the approved
 - Federal Excise Tax - currently 3%
 - 911 Tax - currently .72%
 - Local/City Tax - varies
 - Carrier specific surcharges and surcredits
 - CPUC User Fee .11%

CTF Services Description

Measured Business Lines 1MB

- Local telephone service also known as “Plain Old Telephone Service” (POTS)
- CTF discounts only apply to the monthly charges attributed to the line
 - CTF discounts do not apply to any measured usage charges (i.e., charges billed in increments of time - “usage”)
- Local telephone service lines are typically used with key systems at school locations

CTF Services Description

Switched 56

- Description: End-to-end switched digital data service provided through telco Central Office (CO) switching platform
- Initially implemented in many areas prior to the availability of ISDN
- Can interconnect with ISDN services

CTF Services Description

ISDN

- Description: Stand-alone service that provides access to the ISDN network over a single line
- Support both voice and data based applications through assignment of channels (each channel can transmit data at speeds up to 64 Kbs)
- Standard interface provides connection to various equipment interfaces (i.e., routers)
- Commonly used to support video-conferencing applications

CTF Services Description

T1 Lines

- Description: Digital transmission link with capacity of 1.544 Mbps (1,544,000 bits per second)
- Provides point to point connection of locations across long distances
- Can be used to support either voice or data applications (i.e., Internet access)
- Typically configured as either a mesh or star based topology design when connecting multiple sites

CTF Services Description

DS-3

- Description: Digital service, level 3. Equivalent of 28 T1 channels operating at 44.736 Mbps
- “Big Pipe” service commonly used to aggregate traffic (i.e., T1 lines) at a master site
- Can be used to provide higher rates of Internet access for large organizations (i.e., large school districts)
- May be segmented to carry several types of traffic such as voice (i.e., telephone service), data (i.e., Internet service)

CTF Services Description Above DS-3

- CPUC Resolution T-16542 adopts the addition of services higher than DS-3 as eligible for CTF
- One DS-3 is equivalent to One OC-1
- One OC-3 is equivalent to three DS-3's
- One OC-12 is equivalent to twelve DS-3's
- One OC-48 is equivalent to forty-eight DS-3's
- One OC-192 is equivalent to 192 DS-3's

CTF Services Functional Equivalents

- Functional equivalents of the five Teleconnect eligible product sets (IMB, T1, Switched 56, ISDN and DS3, Above DS-3) are also eligible for Teleconnect discounts
 - Product eligibility must be approved by the CPUC
 - Check with your provider to determine which of their products are eligible

Eligible E-rate Services

- Focus is on infrastructure and transport.
- Classifications of products/services are eligible:
 - Telecommunications Services
 - Internet Access
 - Internal Connections

E-Rate Eligible Services

- Eligible services
- Installation and monthly charges
- Multi-year contracts are allowed
- Taxes/surcharges on approved discount amounts

E-Rate Eligible Services References

- SLD Eligible Services List provides detail about which specific services are eligible
- List is available on Web and via fax-on-demand www.sl.universalservice.org/reference/eligible.asp
- If service is NOT on list:
 - Assume it is not yet eligible
 - Call help line to confirm or **send email** to question@universalservice.org
 - **When in doubt, break it out!** If you want to request discounts on a service of questionable eligibility, include it as a separate Funding Request in Block 5, Form 471

Eligible Services

- Check Eligible Services List on SLD Web Site
 - Service categories important - Priority 1 versus Priority 2 - don't mix them up
 - Who can be service provider?
 - Basic phone service (tech plan not required)
 - ♦ Local, long distance, cellular, Fax
 - ♦ If not certain and you have no tech plan, call SLD - Client Service Bureau at 888-203-8100
 - Be careful: voice mail, directory advertising, unpublished number ineligible

Eligible Services

(Cont'd.)

- Principles
 - Costs to get information to classroom generally eligible - end-user equipment (e.g, telephone, PC, TV) not eligible
 - Telecommunications (including video service) must be from eligible telecommunication provider, (i.e., provides service on a common carriage basis)

Eligible Services

(Cont'd.)

- WAN eligible only if leased from service provider
 - recent clarification on PIA procedures: we don't deny for internal connections to a WAN
- LAN is internal connections
- Service provider equipment on customer premises is Priority 1 if:
 - Service provider owns
 - Customer does not use for any other purpose
 - Customer's LAN functions without it

Eligible Services

(Cont'd.)

- Amortization of service provider equipment. FCC does not want to deplete USF by full up-front purchase of service provider infrastructure
 - Brooklyn Public Library decision
- Use is important - must be for educational purposes
 - Paging & phone service eligible if eligible use
 - Prepaid Calling cards -- ineligible because no assurance of eligible use
 - Remote access router -- cannot be used remotely

Form 471 Certifications

- Certifies that Schools and Libraries
 - Are eligible
 - Have secured access to necessary support resources to make effective use of discounts
 - Are covered by technology plans (if required)
 - Complied with all applicable state and local procurement laws

E-Rate Services Description

Telecommunications Services
Including Taxes and Surcharges

- Basic telecommunications service including:
 - Local
 - Wireless
 - Long distance
- Advanced digital data services including:
 - T1
 - Frame Relay
 - ATM
 - ADSL

E-Rate Services

Telecommunications Services

- Service providers use a variety of names for functionally equivalent services:
 - 1MB, B1, Trunks, Rotary lines
 - Centrex, Centranet, Centrex Plus
 - ADSL, HDSL, XDSL, SDSL
 - T1, HiCap, DS1
 - DCS, Supertrunk
- Check with your provider for specific regarding product offerings

E-Rate Services

Telecommunication Services Issues

- Use the correct SPINs for the appropriate type of services
 - Long Distance providers have their own SPINs (most Service Providers have different SPINs for each major service such as local telco lines, high speed lines, ISP, wireless)
- Check with your provider regarding their understanding of product eligibility
 - (e.g., voicemail is not eligible, Leased components of a WAN are eligible, privately constructed and owned WANS are ineligible)

E-Rate Services Description

Internet Access

- Eligible:
 - Dial-up internet access
 - Direct internet connections (i.e., communications link to ISP)
 - Subscription fees paid to ISP
 - Equipment charges under certain criteria
- Ineligible
 - Online content
 - Internet training
 - Filtering (as a service or as software)

E-Rate Services

Internet Access Issues

- Internal connections necessary to support Internet access must be properly classified
 - Equipment such as routers can be included under the Internet access classification in some cases. The SLD assumes routers and other hardware to be internal connections. It is up to the applicant to show that it fits into special exceptions.

E-Rate Services

Internet Access Issues

- To be considered under the Internet Access classification, equipment located at a school must:
 - Be owned by the ISP with no plans to transfer ownership to the school/library in the future
 - Not be used by the school for any purpose other than the provision of Internet access
 - Be serviced and maintained by the provider
 - Generally be paid for by the school or library over time as service is consumed

E-Rate Services Description

Internal Connections (sample list)

Eligible:

- Wiring
- Routers, Switches, Hubs
- Network servers
- System software
- Wireless LANs
- Private branch exchange (PBX) and key telephone systems (KTS) consoles

E-Rate Services Description Internal Connections (sample list)

Ineligible:

- Personal computers
- FAX machines
- Modems/cable modems
- Asbestos removal
- Cameras
- Electrical wiring
- Teacher training
- Curriculum software
- Content

E-Rate Services

Internal Connections Issues

- Administrative Buildings
 - "Internal connections in an administrative building are eligible only if the connections are essential for the effective transport of data and information within an instructional building. In particular, routers, hubs and servers located in an administrative building are eligible only if the building is the host for LANs that serve instructional buildings. Connecting rooms within an administrative building by Ethernet or other means is not eligible." source: SLD Administrative Services Fact Sheet

E-Rate Services Services to Administrative Offices

- Services to administrative offices and buildings are eligible for discounts under certain circumstances consistent with educational purposes
 - Circumstances are explained on the SLD Administrative Services Fact Sheet
www.sl.universalservice.org/reference/admin.asp

E-Rate Services Services to Administrative Offices

- Within Schools:
 - Telecommunications services, Internet Access and internal connections for administrative offices in a school building are eligible for discounts only if the same services are also delivered to classrooms and other places of instruction in that building
 - Plain Old Telephone Services (POTS) are always eligible for discounts for eligible entities

E-Rate Services Services to Administrative Offices

The two-part test to determine eligibility of services for administrative offices:

1. Is the building a centralized district office or similar facility?
 2. Are the telecommunications and/or Internet services being provided to the administrative building as part of a network whose primary function is the delivery of such services to places of instruction in instructional buildings or rooms available to the public?
- If the answer to both is yes, then the services are eligible for discounts
 - If the answer to either is no, then such services are not eligible.

E-Rate Services Wide Area Networks

- Discounts will be available on wide area networks only if the services/components can be classified as an eligible service
 - May be leased telephone lines (wireless included)
 - Telecommunications services provided over a leased WAN may be provided by eligible telecommunications providers
- Details regarding eligibility of WANs are explained on the SLD Web site
www.sl.universalservice.org/reference/wan.asp

E-Rate Services Wide Area Networks

- WANs used to provide access to the Internet may be eligible for discounts, to extent that the leasing of WAN is the most cost effective means of Internet access
 - Facilities must be leased from a service provider rather than purchased by the customer
 - Internet access which includes the leased WAN service must be shown to be the most cost effective means of obtaining the Internet access
- Internet access provided over a WAN may be provided by non-telecommunications service providers

E-Rate Services Wide Area Networks

Examples

- WAN used to connect multiple schools though leased connections from an eligible telecommunications service provider
 - ♦ Price of connections for discount would be eligible as a telecommunications service
- Computers of a school district are connected in order to share access access to the internet. Connections are leased from a non-telecommunications provider (e.g., cable company) and are the most cost effective means of accessing the Internet
 - ♦ Price of leasing the connections is eligible for discounts as Internet access

E-Rate Services Local Area Networks

Internal Connections

- Eligible for support if such service is necessary to transport information within one or more buildings of a single school campus
- Single school campus may comprise multiple instructional buildings located on one parcel of land that does not cross a public right of way

New E-Rate Eligible Services and Products (as of 12/29/00)

Telecommunications Changes (partial list)

- Centrex Common Equipment – the recurring monthly charge associated with the CENTREX service.
- Directory Assistance charges – charges assessed for calls made to 411 or other directory assistance #s
- Fax Machine Line – a telephone line that is specifically dedicated to a school or library's fax machine
- Network Access Register – used with Centrex service and serves the same function as a PBX to provide access to the telephone company central office
- Primary Interexchange Carrier Change Charge- is the charge when changing from one long distance

New E-Rate Eligible Services and Products (as of 12/29/00)

Internal Connections Changes (partial list)

- Edge Device – a device, such as a router or Ethernet-to ATM-switch directly connected to an ATM network.
- Hubs – are devices that serve as the control point for system activity management and growth
- Switches – a mechanical or electronic device that directs the flow of electrical or optical signals.
- Internal wiring – is all wiring and cable necessary to transport information all the way to individual classrooms.
- Modified or Clarified E-rate Eligible Services
(<http://www.sl.universalservice.org/reference/eligible.asp>)

E-Rate and CTF: Comparison of Eligible Services

Type of Service	E-rate	CTF
Telecommunications	YES	YES
Internet Service Provider	YES	NO
Internal Connections	YES	NO

E-Rate and Teleconnect: Comparison of Telecommunications Services

Type of Service	E-rate	CTF
Basic voice telephone monthly charges	YES	YES
Advanced Services (T-1, ISDN, Frame Relay, etc.)	YES	YES ¹
Usage Charges (long distance local toll, etc)	YES	NO
Installation	YES	NO

1. Not every part of every advanced service is covered, but many are.

E-Rate and Teleconnect: Other key comparisons

Description	E-Rate	Teleconnect
Funding Entity	Federal	State
Level of Discount	20% to 90% ¹	50%
Discount Period	1 year	Continuing ²
Application Process	Complex	Simple
Application Time Frame	Annual Window	Anytime

¹ Amount of discount varies based on percentage of students eligible for National School Lunch Program

² Once an eligible service is approved, the discount continues as long as the service continues. New services must be applied for as they are added.

**California Department of Education
(CDE)**

**2000-2001 E-rate / CTF Training
Materials**

End

**“Eligible / Ineligible”
Session**

2001 E-rate/CTF Training
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